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AUTHOR Muszynski, Marek; Kowalewski, Andrzej
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ABSTRACT

Numerous studies conducted by the Committee for Studies on Regions under Industrialization of the Polish Academy of Sciences provide the basis for historical analysis and regional comparison relative to concept formation, program guidelines, and program implementation procedures for rational human factor management. The exhaustion of Poland's agricultural manpower reserves has created labor management problems for both the whole economy and specific industrializing regions. Labor management should aim at ordering phenomena related to occupational migration from agriculture in terms of socio-occupational and spatial systems which exert an active influence upon the development of migration, its scope, and its form via a long term human factor management program. Such a program should aim at ensuring conditions for effective change monitoring which encompass the technical and social environment and permit intensive manpower management relative to the interests of both agriculture and industry. Starting with the individual, his group and social needs, such a program should strive to limit all the negative effects of rapid industrialization/urbanization. A concept of manpower management in the Lublin Coal Basin suggests a model incorporating peasant-worker settlements, intensive agricultural development, and extensive transformations. (JC)

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POLSKA AKADEMIA NAUK
Instytut Rozwoju Wsi i Rolnictwa

POLISH ACADEMY OF SCIENCES
Institute of Rural and Agricultural Development

Marek Muszyński
Andrzej Kowalewski

HUMAN FACTOR MANAGEMENT IN A REGION UNDER
INDUSTRIALIZATION - A CONCEPT

Warszawa 1976

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HUMAN FACTOR MANAGEMENT IN A REGION UNDER INDUSTRIALIZATION - A CONCEPT

1. Approach to the problem

Human factor management in a region under industrialization is one of the key problems of socio-economic development. This issue is related primarily to the influx of rural population to towns and departing from farmer's profession. It is a complex phenomenon embracing all aspects of life of this population and has its economic, social and socio-cultural implications.

As each social process the phenomenon of migration from agriculture entails both detrimental and positive effects. Hence, the evaluation of this phenomenon is extremely difficult and depends on:

- the level of socio-economic development
- available manpower resources in agriculture
- scope and forms of migration
- adopted criteria for social evaluation of this phenomenon
- time span

In each region under industrialization this phenomenon assumes different dimensions and depending on the existing situation it is marked by a different layout of both positive and negative phenomena. From the overall economic point of view the migration from agriculture is by all means a positive phenomenon if people tend to migrate to those sectors of national economy which are marked by higher labour output. Therefore,

if we speak of an ambivalent character of this process we have in mind, first of all, the negative side effects. They emerge with striking intensity in regions under industrialization and are likened with a disfunctional role that an industrial center plays in relation to the surrounding region. Industry being an alien element plays a disintegrating function in relation to the existing systems /structures/ in a given region.

Thus, as far as demographic structure of rural population is concerned the migration from agriculture affects the balance regarding sex and age of agricultural population. There come into being farms run by ageing farmers with no successors and other phenomena such as birth rate decline and feminization of farmer's profession.

In the real socio-occupational structure this process causes occupational disintegration and in particular it gives rise to a new intermediate category of peasant-workers. These phenomena entail a number of after-effects in the sphere of production leading to disintegration of bonds between manpower resources and the existing agrarian structure. This is accompanied by such phenomena as dropping out of land from agricultural production, ineffective land utilization by part of farms later leading to disturbances in the demographic and socio-occupational structure in peasant families. Consequently, in the longer run this leads to hampering of the rate of growth and subsequently even to the decline in agricultural production. The development of a new population category /peasant-workers/ petrifies additionally the existing agrarian structure thus giving rise to barriers impeding faster implementation of technical progress to agriculture, switching to new methods

of production and last but not least it renders more permanent the disconsolidation of agrarian structure.

Whereas, in the socio-cultural realm the disfunctional role of an industrial center results in disintegration of a traditional system of values and family bonds, occurrence of a number of phenomena verging on social pathology, cultural vacuum, and development of urban sub-culture in rural communities.

It should be noted that parallelly to autonomous evolution of migration processes there increase in time the effects of the disfunctional role played by an industrial center in relation to the surrounding region. This is linked with a growing divergency between disintegrating processes evoked by the industrial center and autonomous mechanisms of adaptation to the new conditions. The more stronger and concentrated the influence of an industrial center in time and the more traditional the system /no inner reserves in agriculture/ the larger the divergence. This implies that parallelly to the exhaustion of simple manpower reserves in agriculture there must grow the dichotomy between the scale of industrial center integration and capacities of inner adaptive mechanisms existing in a traditional system. This causes the growth of detrimental side effects connected with industrialization in a given region. Thence necessity of counteracting this process calls for embarking on an active and complex policy of manpower management. It is imperative for this policy to be aimed at restoration of the functionality of single economic and social systems /structures. However, these activities cannot be geared towards rendering the existing status quo more permanent rather than pursuing a policy aimed at securing functionality of single systems

on a higher level of development. This calls for reassessment of the approach adopted to migration from agriculture and determination of new criteria pertaining to the scope and forms of migration adjusted more adequately to the new conditions of development

The presented concept regarding human factor management in a region under industrialization pursues three objectives:

- elaboration of the guide-lines of the programme on rational human factor management
- elaboration of the concept of studies related to practical implementation of the concept on the development of a region under industrialization
- suggestions regarding the means and methods of realizing this programme.

This is possible owing to numerous experiences derived from studies conducted by the Committee for Studies on Regions under Industrialization of the Polish Academy of Sciences, Division for Studies on Regions Under Industrialization and the Institute of Rural and Agricultural Development of the Polish Academy of Sciences. At present these studies may fulfill a dual role:

- permit to conduct a historical analysis on the development of changes in the human factor in a given region under industrialization with all contradictions and undesirable side effects of this process brought to the fore.
- provide data for a comparative analysis of developments underlying this process in another region.

From the point of view of economic policy the use made of the findings of the studies on effects of industrializations in

regions subject to industrialization should facilitate monitoring of the process of changes in human factor under new conditions and in regions so far not affected by intensive industrialization.

2. Problems related to a rational human factor management in a region under industrialization.

A rational human factor management in a region under industrialization in the phase of the exhaustion of simple manpower reserves in agriculture calls for meeting the following conditions:

1. Industry should not develop at the expense of agriculture
2. Industry should ensure conditions for intensification of agricultural production
3. Evolution of the region under industrialization should be compatible with intensive manpower management in agriculture and the developing industry.

The purpose of such activity is to pass from the phase of an unbalanced growth to the phase of a gradual adjustment of the disproportions between industry and agriculture which tend to emerge during a certain period of industrialization.

Subsequent development of industrialization should run smoothly, with changes occurring in other socio-economic structures. However, in view of the force and the rate of influence exerted by industry on the existing structures the steps taken in this respect ought to be active ones integrating substantially the development of adaptive processes. A rational human factor management should constitute one of the elements of this activity. It should consider two aspects of the problem: economic and social, broadly speaking - humanistic.

The economic aspect pertains to the definition of the scope and forms of migration from agriculture on the basis of pursued objectives of socio-economic development of the region under industrialization. Obviously, there should also be considered the needs of an industrial center under construction and the requirements of agricultural population. The outflow of manpower from the rural areas must be adjusted to the rate of socio-technical reconstruction of agriculture. A rational manpower management creates conditions and renders indispensable a more radical intervention into the sphere of organization of agricultural production. The switching to new methods of production in agriculture does not only ensure conditions for the growth of labour output in agriculture but simultaneously raises the requirements in the field of the quality of manpower. Hence, intensive manpower management in agriculture becomes indispensable. On the other hand, the adjustment of migration from agriculture to the economic capacities of accelerated socio-technical reconstruction of agriculture should promote a more intensive manpower^{management} in industry. Both these processes point simultaneously to the necessity of changing the hitherto existing forms of migration with priority given to definite migration rather than a partial one. From the point of view of agriculture this is imperative in view of the need for a more rational land management and adjustment of the agrarian structure to the higher technical level and new methods of production. From the point of view of industry, it is necessary to procure highly skilled workers and consequently to introduce on an ever growing scale capital-saving technologies necessitating adequately trained labour.

The humanistic aspect is linked with determination of the

socially indispensable scope of changes in societal environment and living as well as working conditions. A rational human factor management must consider the dialectical relationship between changes in technical and social environment.

The changes in technical environment in a region under industrialization resulting from the development of industry and technical reconstruction of agriculture ought to be guided by changes in human factor. These changes must be adjusted to the rate of industrialization of the region and modernization

The growth of capital absorbtiveness and switching to new methods and techniques in agricultural production necessitate:

- accomplishment of such changes in the socio-occupational structure of rural population which would correspond to changes in production methods and techniques,
- raising of general and professional skills of the rural population
- introduction of new organizational forms of production adjusted to the higher level of concentration and specialization in agricultural production
- ensuring of indispensable social and living conditions for full mobilization of manpower in the production process
- creation of conditions aimed at adjusting the hitherto existing way of living and working of agricultural population to the new needs.

Whereas, intensive human factor management adjusted to the needs of the developing industry in a region under industrialization calls for:

- acceleration of definite migration processes combined with a change of residence

- creation of conditions facilitating adaptation of migrating rural population to the new place of work and residence
- continuous improvement of both general and professional skills of the population migrating to industry.

Between these two tasks there exists a close interdependence. For example, definite migration which provides more leisure time facilitates the raising of general and professional skills of the rural population. At the same time this process favours adaptation to principles and conditions characteristic of a large-scale industrial production.

Intensive human factor management in the region under industrialization is a composite problem the success of which depends on securing adequate material as well as socio-and socio-psychological conditions linked with occupational migration. It is necessary to approach this problem in many ways and from different angles taking into account the findings of numerous social sciences in particular sociology, socio-technics, psychology, ethnography and other. Only such complex approach will guarantee the limitation of negative socio-economic effects connected with the hitherto development of industrialization.

3. Mode of Approach

a/ Principles of a rational human factor management.

A rational human factor management should be tantamount to conscious monitoring of changes in this respect, in accordance with socio-economic targets. If this management is to be fully rational it must consider a much broader spectrum of problems than mere changes in the demand for manpower in the region under industrialization. Its scope should encompass changes occurring in societal environment in a broad sense under the influence of industrialization and urbanization of a region under considera-

tion. This ought to be a programme worked out for the entire population /immigratory and local/ which will find itself in future under the influence of a new industrial center. In recognition of the needs of this new community it is necessary to elaborate definite economic, social and cultural solutions. The way of approach to human factor management should be man-oriented. This implies that man's individual, group and social needs should be placed on the highest level in the hierarchy of values. The needs in the social sphere and in the field of manpower must fall in line with social targets. The monitoring of changes in the human factor ought to be the one of a social character marked by profoundly humanistic orientation with man being a self-contained target. The monitoring ought to be a method of attaining the desirable, socially recognized state and not a manipulation of individuals aimed at achieving the best possible adaptation of a human being to the conditions and requirements dictated by the sphere of production.

A rational human factor management ought to constitute a programme aimed at counteracting the effects of dehumanization of work, technics and human relations and be set on all-round development of personality.

This management ought to approach the problem of changes in human factor as an integral element of the programme on socio-economic development in a region under industrialization, taking into account the whole notion of changes in the technical environment under the influence of industrialization. This programme should be based on a unity of production and social aims and take under consideration the indispensable material and living conditions of the population.

Their programme on human factor management ought to consider the changes in societal environment and the function that this environment fulfills in relation to individuals, changes in behavioural standards, manner of behaviour etc. Thus, it has to be a programme which would provide the answer to the question what should a man and social environment be like as a result of industrialization process.

b/ Delimitation of the **region** under industrialization

The programme on human factor management ought to be worked out for a definite region. The reason for such approach to the problem lies in the dual function that a region under industrialization may fulfill in this particular instance:

- first, it may act as an experimental ground for studies on changes in human factor under the influence of industrialization
- second, it is a field for monitoring these changes

The scope of influence exerted by the new industrial center on realization of the primary production functions ought to be the starting point in delimitation of the region. In this connection there should be considered two functions fulfilled by the industrial center in relation to its territorial base:

- a function of manpower absorption assuming the form of migration of local population from agriculture to industry
- a function of stimulating the growth of agricultural production as a result of the development of a new seller's

market for agricultural produce.

Such undertaking does not aim at close delimitation of the sphere of influencing of the new industrial center on the surrounding agricultural region. It aims at determining the field of activity parallelly to perspective solving of problems

related to the development of agriculture affected by industry's direct influencing. Such region ought to be isolated on the basis of the adopted time-spatial criteria. It should be isolated on the basis of identical evolutionary interests and difficulties which arise in the long run and need to be solved. That is why it can be referred to as a homogeneous region from the point of view of these targets and difficulties not present at the starting point but because of its future direction of evolution. Therefore, it is the future direction of socio-economic evolution that is being emphasized rather than the existing situation in this respect. Hence, it can be called a region of homogeneous evolution. The homogeneity of the evolution concerns agriculture and refers to the inner links arising within the framework of the region between agriculture and the industrial center.

Such delimitation of the region under industrialization should permit to subordinate the socio-economic phenomena to the development of the industrial center in a socio-occupational and spatial system.

c. Method of Realization

The programme on human factor management in a region under industrialization should fall in line with the following features:

1. it ought to be complex, i.e. it should embrace all the complexity of economic, social and cultural objectives linked with a rational human factor management,
2. It ought to be continuous, i.e. continuously augmented on the basis of collected information on autonomous and programme stimulated changes in the human factor

3. it ought to be an integrating programme, i.e. the one facilitating coordination of the existing forces and means so as to achieve the pursued objectives.

The elaboration of the concept on human factor management in a region under industrialization aims at a definite practical target namely, providing economic policy with necessary information rendering it possible to influence the desirable changes in the human factor and manpower resources at the in-coming period, pointing to positive and negative phenomena occurring in the course of programme realization, as well as to the kind, needs and effectiveness of undertaken intervening activities with the aim to achieve the pursued objectives.

The elaboration and realization of this programme may provide interesting material and experiences for a broader, generally theoretical problem concerning social evaluation of technics and delimitation of negative effects resulting from economic development and changes that it evokes in relation to physical and social environment.

The programme on rational human factor management should present in a problematic way the economic, technical, social and cultural aspects of this issue, and suggest definite applicable solutions within the framework of the complex programme on monitoring the development of industrialization. Some of these problems are as follows:

- analysis of the social costs resulting from definite migration from agriculture
- future model of agriculture in that region with human factor taken into account
- organization of general and professional education system for the needs of agriculture and industry

- analysis of the system of social institutions and of their role in the process of monitoring the desirable changes in the human factor.
- model of spatial shifts of manpower and reconstruction of the existing socio-technical infrastructure in the region under industrialization,
- selection of production techniques on the basis of the analysis of trends in population and manpower shifts.

It is only in the course of close cooperation between science and practice in the process of elaborating a detailed concept of future arrangement programme for the whole region that it is possible to determine a detailed solution to these problems.

4. A spatial approach to the programme on human factor management in Lublin Coal Basin

The development of Lublin Coal Basin in a traditionally agricultural region creates conditions for a model solution to problems related to occupational migration from the rural areas to towns and acceleration of technical and social reconstruction of agriculture.

We assume that the development of coal industry of a nation-wide importance ought to take place with no detrimental effects for agriculture. Industrialization of this region should become a stimulus for activating its hitherto production functions, i.e. agricultural production. The need to provide more food for the country coupled with the growing demand for agricultural products in the Coal Basin advocate this line of development. In view of the destructive influence that industry exerts on agriculture in the longer run in the region under industrialization, it is necessary to earmark additional means and pursue an active

policy set on ensuring conditions for the development and intensification of agricultural production.

The proposed programme on rational human factor management in Lublin Coal Basin aims at presentation of applicable solutions which would allow in the in-coming period, determined by the rate of industrialization, to achieve desirable development of such phenomena as occupational migration from agriculture, growth of occupational mobility as well as changes in the educational level and its socio-occupational structure. In the course of programme elaboration there were considered the hitherto findings of the studies on the nature of socio-economic and socio-cultural transformations in agriculture, in local rural communities and peasant families as a result of industrialization. It has also been decided to take into account the envisaged effects of industrialization which can be determined by way of conducting a social technical evaluation considering the changes occurring in technical environment.

The scale of the undertaking which is a construction of Lublin Coal Basin, as well as the degree of disfuncionality that it is bound to bring about calls for embarking on a more active policy geared toward safeguarding the interests of both the developing industry and agriculture. A participation in the initial elaboration of the arrangement programme for the whole region should make way for a more conscious shaping of socio-economic processes on the basis of experiences gained in other regions under industrialization, as well as to analyse the needs and preferences of local population.

This activity aims at limiting those negative effects which result from unawareness of the development of this process in the region under industrialization. The programme on rational human

factor management in the region under industrialization ought to provide information on the number of indispensable intervention measures aimed at acceleration of adaptive processes. The proper shaping of this process is of particular importance within a socio-occupational and spatial systems.

The adoption of a spatial system as a basis should permit a better division and distribution of material means indispensable in the in-coming period for accelerating the processes of occupational and spatial migration of agricultural population, as well as the adjustment of region's technical infrastructure to new production tasks.

Taking into account the inevitable transformations of the region under industrialization its area can be split up into two spheres which differ in the degree of influence being exerted on them by the new industrial center:

- a sphere of intensive transformations, where current and foreseeable activities will lead to substantial changes in the socio-occupational structure and in the field of production,
- a sphere of extensive transformations, where no substantial changes are bound to occur up to a certain moment and thus intervention ought to be confined to the necessary minimum

It are only the areas of intensive transformations, i.e. those affected by the strongest migratory shifts and highest occupational mobility that are of essential importance for the programme on rational human factor management. These phenomena are bound to evoke profound changes in organization and the structure of agricultural production.

The sphere of intensive transformations constitutes a bi-oriented aggregate depending on the future line of the ev-

olution:

They can be divided into:

- regions of intensive transformations affected by direct influencing of industry. They are marked by such characteristic phenomena as decline in the importance of agricultural production and intensification of urbanization processes.
- regions marked by intensification of agricultural production caused by the rapid development of the market for agricultural products on part of the newly set up industrial center. In this case we ignore the problem of intensive agricultural production in the vicinity of urban center, i.e. the issue related to suburban agriculture, as it is of a different character.

It is quite obvious that these two types of regions necessitate separate arrangement programmes and diversified forms and methods of human factor management.

The regions of intensive transformations affected by direct influencing of industry are marked in the incoming period by:

1. Strong positive migratory movements connected with gradual migration of the population from farther regions to the new place of employment. It will thus be the regions marked by the growing population density.
2. Intensified occupational migration connected with easy access to employment outside agriculture. In view of the existing mechanisms which tend to drive manpower out of agriculture, it is necessary to take into account the inevitable, gradual narrowing of the primary production functions and subsequently the transformation of agricul-

tural activities into auxiliary ones confined to the needs of the farmer and his family.

From the point of view of the arrangement programme for the whole region under industrialization it is of considerable importance to:

- accelerate the process of migration of agricultural population close to the place of employment and thus to provide a possibility to decrease social costs of daily travel to the place of employment,
- accelerate the process of occupational polarization and to provide facilities for agricultural population to find employment in industry.

This would exert substantial influence on intensive manpower management in industry and facilitate processes of specialization and concentration of agricultural production in regions located far away from the new industrial center. However, this is a technical as much as a social problem. This is because it is necessary to ensure not only material conditions for the realization of this programme but also to create adequate forms adjusted to definite preferences of the population migrating from agriculture and thus to accelerate the decision making process among farmers to change residence and abandon agriculture. It is essential for this process to assume a faster rate and be confined to a single generation. This in turn makes it imperative to look for new intermediate solutions incorporating aspects of living conditions in towns and villages, with the aim to make the process of migration from agriculture more affable to agricultural population. The greater the need for acceleration of definite migration processes and univocal oc-

cupational reorientation of agricultural population, from a general economic point of view, the more indispensable becomes the application of intermediate solutions. Intermediate solutions should facilitate associating social interests, in the broadest sense of the word, connected with the necessity of faster and explicit transformations in socio-occupational structure of the population with individual interests. The peasant-worker settlements located in regions of intensive population transformations should become one of such forms.

a/Peasant-Worker Settlements

The idea of setting up peasant-worker settlements referred to as an intermediate form town and former rural habitat has been put forward by Professor Dyzma Galaj. Those settlements were to ensure material conditions for a planned dislocation of agricultural population closer to the new place of work at a much faster rate as compared to an autonomous many years' development of this process. Their main task would be to slow down the rate of growth in number and range of bi-professional population and all other negative side effects related to this phenomenon:

The essence of this solution lies in:

- bringing closer to one another the place of work and residence through creation of conditions for migration of agricultural population taking up employment in industry from far away regions to the proximity of new employment,
- ensuring adequate living conditions adjusted to the needs and preferences of agricultural population,
- providing conditions for a gradual transformation of these settlements into settlement units marked by higher degree

of urbanization, parallelly to the conditions favouring such transformations

The peasant-worker settlements can be set up on the fringe of a more advanced urban unit /town/ and have suitable communication connections. A characteristic feature of these settlements is that they should fulfill three fundamental functions:

1. Residential function /permanent residence/ for former agricultural population
2. production function, confined to running a household farm or a household plot by agricultural population
3. social and socio-cultural function

The scope of production function should depend each time on local conditions and result from concrete analysis of preferences submitted by bi-professional population.

The peasant-worker settlements aim at considering the dual nature of their inhabitants, constituting as a rule the first generation of peasants migrating from agriculture.

In the realm of production the advantages of setting up peasant-worker settlements resolve themselves into:

- better use made of marginal manpower reserves in peasant families and farmer's leisure time by rendering it possible for them to engage in farming on a limited scale
- development of agricultural production by means of traditional methods with the aim to improve food supplies in the intermediate period

In the social and socio-cultural realm the main advantages of peasant-worker settlements lie, first of all, in providing the migrating peasants with the most suitable living conditions in a given moment through:

- exerting gradual influence on changes in the style of living and a possibility continuing in a complementary form the hitherto agricultural activities
- creating environmental conditions nearing those of a rural habitat characteristic for smaller communities and marked by higher degree of anonymity and stronger environmental links. It is visualized, if need be, to shift the whole villages or large groups of farmers closer to the new place of employment so as to maintain the hitherto existing systems and local bonds.

The peasant-worker settlements should, as compared to definite migration from villages to towns, improve physical and psychological frame of mind, limit a certain amount of frustration and adaptive difficulties and increase the feeling of personal security and the degree of sociability. They should also gradually favour the changes in the way and mode of living by providing more free time for education, entertainment and other purposes. Hence, they should indirectly influence the acceleration of adaptive processes at a new place of employment /improvement of skills and general cultural level/ and constitute a basis for gradual transformation of the settlements into settlement units marked by higher degree of urbanization.

The setting-up of peasant-worker settlements is tantamount to ensuring better living and intellectual conditions for the peasant-worker population. I ought to be stated that these settlements should provide better living and social conditions for the populations migrating from agriculture as compared to those in the formerly inhabited place, equalling urban standards. At the same time they should facilitate the process of adaptation of migrating population to new conditions. Hence, they are

of considerable importance as far as ensuring of adequate level and quality of life for this population is concerned.

The peasant-worker settlements can on no account be referred to as a complementary or competitive form in relation to definite migration from the countryside to towns. Their target is, first of all, to increase the possibility of choosing the form of migration from rural to urban settlement systems. Hence, each decision taken by the farmers to migrate from agriculture ought to result from their individual needs and preferences.

b/ Regions of intensive agricultural development.

The regions designated for intensive agricultural development in connection with indirect influence exerted by the industrial center, give rise to much more difficult problems related to rational human factor management.

This is linked with the necessity of:

- determining necessary manpower resources for the needs of intensive agricultural production
- elaboration of mechanisms which would retain properly skilled manpower in agriculture and counteract excessive outflow of labour from agriculture as well as negative selection of farmer's profession.

From the point of view of a rational manpower management in these regions it is necessary to resolve problems related to future model of agriculture and countryside. It should be added that this problem is not merely confined to regions under industrialization but a problem confronting all regions intended for intensive agricultural development. However, in the case of regions under industrialization there exists an objective necessity of quicker interference in socio-technical environment.

A rational manpower management is possible only within

The framework of the elaborated agricultural model. The demand for manpower and the requirements regarding socio-occupational structure will depend on future organizational and systemic forms in agriculture as well as on the level of mechanization, concentration and specialization of production. The decisions taken in this respect are strategic and far-reaching ones, of considerable political and socio-economic importance. In case of stronger interference in the sphere of organization of agricultural production and acceleration of the process of socio-technical reconstruction of agriculture it will be necessary to intensify the adaptive processes in relation to manpower. It is all but obvious that the system of training of personnel for future model of agriculture should outstrip in time the changes occurring in technical environment in agriculture. The faster the changes the greater the emphasis should be laid on proper evolution of manpower engaged in agricultural production.

The problem of providing necessary personnel for the needs of intensive agricultural production is a matter of ensuring adequate living conditions in the rural environment for the population opting in favour of farming. This is both material and socio-psychological problem. It necessitates readjustment of the hitherto existing mechanisms set on oneway flow of the population from agriculture to other non-agricultural sectors of national economy which results in progressive demographic and socio-occupational degeneration of agricultural population. Intensive development of agricultural production accompanied by intensive manpower management call for parallel influencing of changes in the rural social environment.

There is no doubt that at this stage of evolution it will

not only be the material situation but also the whole aggregate of conditions pertaining to the level and quality of life in the countryside that will influence to an ever growing extent the level and structure of employment in agriculture.

Similarly to peasant-worker settlements which facilitate migration of rural population from agriculture and ensure single occupational orientation, the agro-towns and villages intended for development should become a basis for retaining in agriculture the indispensable labour reserves. It is a marginal problem to find a right name for these urban units which in relation to traditional villages will be marked by much higher level of investments. Whereas, it is an important problem to determine the programme for these units, adjusted to the future model of agriculture. This programme should reflect the needs of agricultural population and be closely correlated to its present and future preferences. The problem of determining the programme on production, services and socio-cultural programme, is still an open one. It calls for close cooperation on behalf of sociologists, psychologists, ethnographers, socio-technicians and agricultural economists. This problem is an extremely complex one and concerns a fundamental question, i.e. what will be man's role in the future model of agriculture and what will his social environment be like.

o/ Regions of extensive transformations

From the point of view of a rational manpower management the regions of extensive transformations can be referred to as the ones where these changes will occur without considerable external interference in the reconstruction of socio-technical

environment. They will be exposed to the influence of hitherto internal adaptive mechanisms occurring in the region under industrialization. However, these region should on no account be identified with the ones marked by backward peasant farming. At a certain stage of evolution they can even activate substantially their production. However, the extensive character of these changes will lead, ~~in the near future~~ to changes in their evolution. From the point of view of the in-coming period these regions have no possibilities of development. It is expected that in future they will undergo gradual depopulation and a drop in production efficacy. Hence, manpower management in these regions will gradually become a social problem. The programme on human factor management in these regions must be adjusted to these functions in such a way so as to ensure proper living conditions for local agricultural population.

R e c a p i t u l a t i o n

The exhaustion of simple manpower reserves in agriculture creates new conditions in the realm of labour management in the whole economy and within the framework of regions under industrialization. This management should aim at setting in order the phenomena related to occupational migration from agriculture in socio-occupational and spatial systems.

In the new conditions it is necessary to exert active influence on the development of migration as well as on its scope and form. This is possible only in case of elaboration and gradual introduction of a complex, long-term programme on human factor management in the region under industrialization.

Such programme should aim at ensuring conditions for

effective monitoring of changes in the human factor which would consider both the changes in technical and social environment. As far as economy is concerned this programme should permit intensive manpower management in the entire region considering the interests of both agriculture and industry. Whereas, in social and socio-cultural realm it should strive at limiting all the negative effects linked with processes of the rapid industrialization and urbanization. A man should constitute the starting point of the programme, along with his individual, group and social needs. The programme on human factor management should ensure harmonious combining of socio-economic objectives with humanistic targets and all-round development of human personality.

A rational human factor management in the region under industrialization at a stage of intensive manpower management calls for future solutions to problems of agriculture and the countryside as well as profound socio-technical reconstruction.

A concept of manpower management in Lublin Coal Basin aims at suggesting a model solution which would constitute a basis for resolving all these issues in future on a country scale.